

ABSTRACT

A plurality of antennas transmit a first spread spectrum signal having an associated code. The first spread spectrum signal is received at the wireless user. For each received first spread spectrum signal, a second spread spectrum signal is transmitted having an associated code having a same phase as that received first spread spectrum signal. The second spread spectrum signals are received at the plurality of antennas. A distance measurement is determined between each antenna and the wireless user based on in part a received timing of the second signals. The wireless user's location is determined based on in part the distance determinations.